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Euro-Mediterranean Network on Research and Innovation for Food Security

White Paper



Priority 4: Sustainable Development of Rural Communities in Mediterranean Region

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1. Key messages



The growth of agro-industrial practices, global climate vulnerability and policies that favour the dominant global food regime all threaten regional food security. Smallholders can contribute to ameliorating food insecurity and achieving food sovereignty, i.e. control over food production and supplies.

Agriculture is still the main activity in rural communities but, their livelihoods and environmental resources are being undermined by the dominant global food regime, agro-industrial development and land grabs. A socially just solution needs a careful combination public and private investment to assist smallholders to lift themselves out of poverty, improve incomes and secure their access to good-quality culturally and ecological relevant food. Furthermore, such support is also important in terms of allowing certain sectors of rural communities to diversify into non-farm activities. Agroecology has emerged in response to the negative impacts of the first Green Revolution and has matured in response to proposals for a new Green Revolution. Agroecology offers an alternative agenda for addressing poverty and hunger through food sovereignty.

Rural development has a multi-dimensional nature that encompasses economic, social, political and environmental sustainability. Smallholders need empowerment to take action and participate in all development processes. Such action can be fostered by appropriate institutional arrangements, including the engagement in political activity and the design and implementation of relevant public policy.

Rural communities are confronted with multifaceted challenges and vulnerabilities - demographic, economic, social, environmental (climate change and natural resource degradation and depletion). A more context specific and participatory research is needed and a more targeted set of policies need to be designed and implemented under sound good governance regimes involving innovative institutional arrangements and decentralisation..

2. Extended summary

The inhabitants of rural communities are important drivers of development and can become key actors in the quest for economic, social and environmental sustainability. Current trends and strategies for sustainable rural development recognise the central role of smallholders in development dynamics and their crucial contribution in achieving food security. The present document outlines the current situation of rural smallholders in the Southern and Eastern Mediterranean Countries (SEMC), highlighting their continuing importance in the rural landscape of this region, where agriculture still counts as the main economic activity but is threatened by land fragmentation, water scarcity, limited rural services, and climate vulnerability.

At the same time the region is experiencing a population increase that brings along problems such as youth unemployment, urban migration and widespread rural poverty. This is followed by a discussion and classification of the major farming systems of the area, which are categorised according to socio-economic and institutional contexts, which reflect the complexity of rural livelihoods, the interdependence between on- and off-farm activities and rural-urban linkages and the need to adjust livelihood systems to limited resources. The main strategies for increasing income and generating growth are: intensification and diversification of production, development of off-farm activities and, eventually exit from agriculture.

It is important to stress the multi-dimensional and cross-sectoral character of sustainable rural development and the idea that development strategies should not rely solely on increasing agricultural productivity through technical innovation. It is also important to match production as closely as possible to agroecological potential and to frame it within the hierarchy of social, cultural and political structures that provide the context for development activities. This paper recognises the importance of the state in facilitating sustainable development by providing public goods like rural infrastructure, extension services, credit, education and access to markets. At the same time, it acknowledges the limits of state action in targeting the needs of rural communities because of the lack of administrative coordination, conflicting priorities and restricted budgets. In this context local stakeholder organisation and action take on increasing importance. Through participation in decision-making and development processes, community organisation and collective action, and the mobilisation of under-utilised local resources smallholders and rural communities can better respond to development priorities articulated at the local level. Decentralisation has played a major role in empowering local stakeholders but the process remains incomplete. There is still a need for policy to: support the emergence of innovative institutional forms; promote the role of both formal and informal groups and networks; and, above all, to foster the expansion of capabilities and development of critical innovation and learning competences among the full range of rural development stakeholders.

Having defined and characterised the current situation of rural communities and development progress in the Southern and Eastern Mediterranean Countries (SEMC), the document concludes by setting out a number of key development challenges: demographic trends, off-farm economic activities, climate change and natural resource degradation, poor services, gender inequalities and inadequate decentralisation. Consideration of these challenges leads to the identification of priority issues (creating and systematising knowledge on sustainable agricultural practice and natural resource management, understanding smallholder farming systems and appropriate technologies, identifying key development actors and institutions, assessing the potential for capabilities expansion through the development of critical innovation and learning competences among the inhabitants of rural communities and the employees of relevant state, private and third sector institutions) for research in order to provide appropriate guidance to policy makers. At the same time, immediate policy needs are also assessed. These include: the need for better definition and protection of land tenure rights; improved access to credit; better representation of smallholder interests within political bodies at national and local levels; and better policies for enhancing smallholders'

development opportunities and capabilities (education, healthcare, communications infrastructure).

3. Introduction

3.1 Rationale

Rather than heralding an end to hunger and poverty, the 21st century has witnessed recurrent food crises, with sharply rising prices having a disproportionate impact on the world's poor (FAO, 2011), most of whom are small-scale farmers (World Bank and IFAD, 2011). Why? Since the 1970s the dominant agro-food regime has become a market-driven system whereby agro-industrial methods maximise yield and generate surpluses, for which subsidy gains global export, in turn undermining productive capacities and less-intensive methods elsewhere; thus the regime pushes farms everywhere to adopt intensification methods or else abandon the land. In this dominant regime, 'agrofood corporations are the major agents attempting to regulate agrofood conditions, that is, to organize stable conditions of production and consumption which allow them to plan investment, sourcing of agricultural raw materials, and marketing' (Friedmann, 2003: 52). This centralised system expands the most destructive agro-industrial practices, expels smallholders or incorporates them into contract farming, and diverts the most fertile land from local food needs. This threat is variously highlighted or evaded in different diagnoses of the global food problem.

By the middle of this century the global human population is estimated to grow to around 9 billion, leading to calls for an increase of 70% in global food production by 2050 (Conforti, 2010). Moreover, 'annual meat production will need to rise by over 200 million tonnes to reach 470 million tonnes' by 2050, with an imperative for 'increasing input efficiencies' in grain production, argues the FAO (2009: 1, 2). In this neoliberal productivist diagnosis of the problem, market demand arises exogenously from the production system, which therefore must produce more animal feed and meat to fulfill human needs.

From similar diagnoses of the problem, numerous reports have claimed that the most effective way to achieve a great increase in production is through significant investment in biotechnology (World Bank, 2007; Bertini and Glickman, 2008; Baulecombe et al., 2009; Beddington 2011) to accelerate and disseminate what Conway (1997) has referred to as the 'Doubly Green Revolution'. It has been estimated that a new Green Revolution of this type would theoretically allow the world's food requirements to be produced on roughly 50,000 large-scale industrial agricultural units (Amin 2011). However, if this were to happen "how would 2.5 billion displaced smallholders be able to buy this food?" (Holt-Giménez and Altieri, 2013: 94).

Rural smallholder communities have a vital role to play in the global fight against hunger. Rural people account for 48% of the total global population, including 70% of the world's 1.4 billion poor people. The great majority of the inhabitants of rural communities are small-scale agricultural producers, with significant food production potential. They already feed more than 50% of the global population (IFAD, 2009) and their role is considered increasingly important in the context of continued population growth. However, the further global expansion of industrial agriculture through a reinvigorated Green Revolution represents a significant threat to the ability of

smallholders to continue producing. The further consolidation of what McMichael (2009) has called the 'corporate food regime' would involve transnational corporations in land-grabbing campaigns, the assertion of intellectual property rights over crop genetic materials and the establishment of oligopolies in both inputs and food markets. In the process smallholder livelihoods will be destroyed, agro-biodiversity will be reduced and ecosystem services and resilience will be weakened - developments that will "increase global hunger and limit our ability to mitigate and cope with climate change" Holt-Giménez and Altieri (2013: 97).

International organizations like the FAO, World Bank and IFAD, together with philanthropic foundations and academic institutions, claim to be engaged in a struggle to secure food and fight poverty whilst respecting the environment. Such organisations have continuously emphasized the crucial role played by small-scale producers in assuring a multi-dimensional development characterized by economic, social and environmental sustainability. Their position statements and policies emphasise the need to invest in the sustainable development of rural areas and in inclusive rural growth. However, when investigated in detail, proposals such as the World Bank's (2008) focus on "sustainable intensification of smallholder agricultural activities for achieving global food security", are in effect plans for achieving economic growth through the incorporation of smallholders into the corporate food regime in a subordinate and exploitative relationship. This intention is clear when the Bank goes on to underline the importance of engaging a larger share of the rural population in non-farm activities (op. cit.), which becomes increasingly important as capital substitutes labour in the process of agricultural intensification.

Emerging in response to the negative ecological and social impacts of the first Green Revolution and maturing in response to proposals for a new Green Revolution (Gliessman 2013), agroecology offers an alternative proposal for addressing poverty and hunger. Agroecology "promotes the ecological management of biological systems through collective forms of social action, [employing] systemic strategies [focused on] local endogenous potential encoded within knowledge systems ... that demonstrate and promote both ecological and cultural diversity" (Sevilla Guzmán and Woodgate 1997, 93-94). Closely linked to the agroecological approach is the concept of 'food sovereignty' proposed by the smallholder's organisation La Via Campesina (LVC) in 1996 as an alternative to the notion of 'global food security'. "Food sovereignty is the right of peoples to healthy and culturally appropriate food produced through ecologically sound and sustainable methods, and their right to define their own food and agriculture systems. It puts the aspirations and needs of those who produce, distribute and consume food at the heart of food systems and policies rather than the demands of markets and corporations" (Forum for Food Sovereignty, 2007).

As a transdisciplinary, participatory, and action-oriented approach to the development of sustainable food regimes (Mendez, Bacon and Cohen, 2013), agroecology represents a vital strategic tool for developing local and regional food sovereignty and has been recognised as such by the International Assessment of Agricultural Knowledge, Science and Technology for Development (IAASTD, 2009). IAASTD argues that agroecology is a promising approach for addressing the "interrelated global problems of hunger, rural

poverty, and sustainable development” (IAASTD 2009). It links agroecological methods with diversity in crops, habitats, agroecosystems and markets:

Improving the understanding of the agroecological functioning of mosaics of crop production areas and natural habitats, to determine how these can be co-managed to reduce conflicts and enhance positive synergies. Promoting more diverse systems of local crop production at farm and landscape scale, to create more diverse habitats for wild species/ecological communities and for the provision of ecosystem services. This will require institutional innovations to enable efficient marketing systems to handle diversified production. Establishing decentralized, locally based, highly efficient energy systems and energy-efficient agriculture to improve livelihoods and reduce carbon emissions (ibid: 29).

Furthermore, the UN Special Rapporteur on the Right to Food, Olivier de Schutter, has repeatedly promoted the use of an agroecological approach for tackling global food insecurity and food sovereignty issues (De Schutter, 2010, 2011, inter alia).

Thus, governments have a crucial role to play in addressing longstanding structural barriers to ending poverty and developing food sovereignty. They must deliver appropriate public goods, such as agroecological research and extension services and rural infrastructure (roads, electricity, information and communication technologies), provide access to markets (regional and local), credit and education (De Schutter, 2010) and facilitate the emergence and formalisation of relevant legal and regulatory frameworks (especially land rights). However, rural development strategies have been held back by defective national policies and the failure of institutional and market arrangements to create an enabling and conducive environment for smallholders to act as properly fuelled engines of development (IFPRI, 2011). This is why supportive and enabling policy mechanisms for expanding the capabilities of rural inhabitants (involving systems for developing learning and innovation competencies), promoting more effective and inclusive decision-making, correcting imperfect market mechanisms to improve equity and efficiency, supporting appropriate management of agroecological resources, etc., are key factors in the sustainable development of small rural communities and achieving the kind of widespread food sovereignty that can bring an end to food insecurity.

3.2. Aim and Scope

The present document identifies rural communities, small scale producers and local government and non-government organisations as crucial actors in the struggle to end food insecurity and contribute to the sustainable development of rural areas. It provides an overview of the situation in the Southern and Eastern Mediterranean Countries (SMEC), drawing on a range of international reports including the IAASTD (2009) *Agriculture at a Crossroads* Report for Central and West Asia and North Africa. Drawing on these reports, on the tenets of agroecology and the goals of food sovereignty, current conditions and regional trends are assessed and key areas requiring research are identified. The aim of the research agenda is to generate better understanding of the roles of rural people and communities in achieving food sovereignty and sustainable development and the institutional arrangements required to facilitate their efforts.

The specific objectives of the paper are briefly to outline the situation of smallholders and rural communities in the SMEC in terms of their geographical and social contexts, their agroecological resources and food systems, their livelihood strategies, political and institutional contexts, and the environmental, social and economic challenges they face, in order to identify which aspects need additional research to provide a more targeted and specific set of policies to address development deficits and allow them to tackle food insecurity and achieve food sovereignty.

4. Background (Definitions and concepts)

The present paper reports and discusses issues related to the following concepts and definitions:

Small scale producers: “women and men, farmers, fishers, livestock producers, and forest users who produce on a small scale for both auto-consumption and the market ... and who are relatively vulnerable to food insecurity due to limited resource endowments compared to other producers in the sector and similar economic, social and cultural contexts. Scale refers to farm size for farmers or to the scale of production for fishers and forest users” (FAO and IFAD, 2012).

Rural communities: conventionally understood as human populations clustered together in hamlets, villages and small towns located in rural territories (ISTAT, 2010). These *traditional rural communities* share similar socio-economic and agroecological conditions that influence their livelihood systems and have long-established cultural norms and institutions for dealing with community problems and resolving disputes.

Especially within pastoral and semi-pastoral traditional communities, activities are governed by custom rules and land ownership is characterised by tight linkages between ecological conditions and social structures.

Over the years, land has been shared among the different groups within a tribe, among the village groups and then among different family households, taking into account the number of each household's members, labour assets or the quality of the land (Stahl, 1977). Demographic changes, the influence of monetary economy within villages, integration of towns in the exchange flows between local and international markets have contributed throughout this century to the collapse of traditional societies and of the values inherited from the past.

‘Communities’ may also refer to *associations of farmers, pastoralists, fishers and forest users* that are established to optimise their members' responses to agroecological conditions, market opportunities and public policy signals. In addition, we can also talk about *communities developed in the context of NGO activity* seeking to enhance local capacity for managing the social and financial resources required for fostering sustainable development processes. Families (nuclear and extended) are the main social unit in rural communities. Activities tend to be gendered, with men typically involved in land preparation and occasional hunting, and women dedicating their efforts to productive activities, such as gardening, small livestock husbandry, food processing, petty trading, as well as reproductive tasks such as child care, water and wood

collection, and cooking. Children are often also involved in the practical activities of families either working with adults or alone.

Rural livelihood systems: sets of activities that are carried out to secure the necessary means for living. Livelihood systems can be defined at the level of the individual, the household or the community. They are characterised by a number of factors: agroecological resources, human and physical capital, and access to infrastructure and services. Rural livelihoods are based largely in natural resource management. Small scale producers manage resources including cultivable lands, forests, rivers, rangeland, etc., to which they have a mixture of access rights: private property, state property with management rights, common property and open access resources.

Productivity: Agricultural productivity is an ambiguous and contested concept. Understood as a ratio, the concept can be helpful for comparing the benefits of different land-use options and methods. But there are various ways to conceptualise inputs, outputs and their value. Productivity often means yield, i.e. crop output per unit land. It can also mean output (e.g. a single commodity crop) per total input (seeds, agrochemicals, water, etc.). From a broader perspective, outputs can encompass various crops and wider biodiversity in the same field, as well as public goods outside farmland. By minimising external inputs, moreover, agroecological methods can increase productivity even if output remains the same. Agroecosystem productivity denotes a self-sustaining biodiverse capacity (Altieri, 2000; see section 4). Such outputs and their value elude the simple criteria of the productivity perspective. Proposals to 'increase productivity' often pre-empt the key issues of what to produce, how, where, why and for whose benefit -- as discussed in this document.

Pluriactivity and livelihood diversification: in order to satisfy different human needs and to cope with risk, seasonality and other vulnerability factors, rural communities are engaged in a wide range of interlinked activities that can include agriculture, forestry, fishing, processing, trading, etc. (Chambers and Conway, 1991). Different activities can be categorised according to what they involve and where they occur. They may be undertaken on-farm or off-farm and might include farming, herding, hunting, gathering, handcrafting (e.g. weaving, carving), processing, petty trading, wage labour, the provision of transport services, etc. Their agroecological practices, based on techniques developed from local knowledge and experience, are generally characterized by low external inputs, diversification in time and space, significant crop and wild species genetic variation, integration of crops and livestock, and water harvesting techniques (De Schutter, 2010; IAASTD, 2009). In the context of policies and efforts towards market integration, commercial/industrial resource use practices may also be incorporated within rural livelihoods. These, in contrast, are more likely to involve external knowledge and inputs, specialised monocultures of hybrid or genetically engineered crops and modern, capital intensive irrigation systems. Depending on the location and size of rural communities, other non-farm activities are conducted such as masonry, carpentry, tourism, hospitality and transport services.

Local groups and organisations and associated institutional arrangements: these can be based in a specific locality - a village - or may encompass collections of villages

organized within some form of institutional framework - extended families, ethnic groups, religion, administrative district, etc. Other institutions may be based around a specific sector in a community with a common bond, such as members of a neighbourhood, gender or productive activity, such as the associations of producers that we referred to when defining communities. Local groups and institutions are likely to play a role in local decision-making, coordination and mobilization of available resources (ISRDS, 2000). They are particularly important for providing a framework for consensus building, collecting, analysing and evaluating information and taking collective action such as co-ordinated management activities. Local groups and institutions can also provide the basis for the type of learning and innovation systems that enable small scale producers to identify solutions collectively and build strategies to cope with change (FAO, 2012). Other institutions may play a bridging role between various local groups and between local groups and higher level organisations. The success of agricultural innovation and technology adoption depends on institutional arrangements including political power.

Power and empowerment: There are many definitions of power and types of power. Rowlands (1997) distinguishes among: ‘power over’ - the type of coercive power that results in win-lose situations; ‘power with’ - associated with mutual support and solidarity important in building political alliances to further community interests; ‘power to’ - the agency we all possess, which allows us to make a difference in the world; and ‘power within’ - our own self-belief that allows us to hope for and believe in a better world for ourselves and our families. Empowerment is about building power ‘within’, ‘with’ and ‘to’, so that small-scale producers and rural communities can engage in political action and participate in state institutions in order to influence the design of public policies that create a favorable institutional framework for the development of sustainable agroecosystems and food sovereignty.

Box 1 *Some examples of institutions for sustainable rural development and food sovereignty*

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Community campaigning groups: to gain political recognition, fight for agrarian reform and win inclusion in policy-making fora and develop political capital.

Community co-operatives: allow people to benefit from economies of scale by bringing together their resources and experiences in production, processing or distribution.

Credit unions or rotating loan groups: community banks that can provide farmers with small loans to undertake investments in sustainable agriculture.

Farmer research groups: can facilitate community development by allowing smallholders to set the research agenda and providing an institutional setting to allow scientists to work within the complex dynamics of existing agroecosystems.

Farmer-to-farmer groups: spread knowledge and understanding of productivity enhancing and resource-conserving methods between local farmers.

Local consumer organisations: can stimulate the market for local agricultural products, allowing farmers to retain more income and consumers to buy their food more cheaply, by excluding intermediaries.

Local resource-management organisations: basis for community-led action in such areas as reforestation, irrigation management or soil and water conservation schemes.

Machinery circles: sharing the costs of owning machinery

Multi-stakeholder innovation platforms: promote learning and innovation competencies

Drawing on: (FAO, 2012, Woodgate, 2012)

5. Rural communities in Southern and Eastern Mediterranean Countries

It is important to recognize from the outset that a significant number of the SEM countries have, in recent years, experienced and continue to experience significant economic and social change. Perhaps the most important factor underlying these changes has been structural adjustment policies that have sought to reduce public spending and promote market liberalization and integration. While these policies resulted in significant economic growth, they also generated further inequality. With the onset of the 2007 banking crisis and subsequent economic recession in the European Union and the USA, booming commodities markets began to slow and the dependence of regional growth to global economic conditions was laid bare. Under these circumstances numerous SEMCs have experienced political upheavals that have had and continue to have significant implications for their citizens, including the inhabitants of rural communities. Thus any characterization of rural communities and livelihoods must be treated with caution and accepted as being subject to rapid change.

5.1 Population and unemployment

The Region under discussion has an overall population of 361 million people that has increased by more than 120 million in the last two decades (IFAD 2010). About 161 million (45%) live in rural areas. Rural populations are still growing; according to a study reported in *Mediterra* (2009) they will continue to grow until 2020 by which time a further two million people will have been added to the total. However, the rate of growth is slower if compared to the growth of urban populations. It should be noted, though, that the overall demographic trend is influenced by the weight of populations in particular countries. Egypt, for example, with more than 81 million people of whom some 47 million live in rural areas, masks a more diffuse trend of rural depopulation.

Poverty, exclusion of population from development and migration flows have been the most striking indicators of the crisis experienced by local economies, which have been caught unprepared to provide employment and income to support livelihoods and to the increase of active and young population. The population growth rate has not been accompanied by an equivalent economic growth.

The Region has a high percentage of youngsters ready to enter the job market more than 50% of whom are under the age of 25 (IFAD, 2010) and this has shaped the labour market in a particular way (between 300 and 400 thousand new active people on the labour market in Morocco and Tunisia, between 30 and 40 thousand in Tunisia in the year 2010). Migration towards urban centres is massive, as young people looking for jobs try to escape the hardship of rural lives, but what they find is mainly very precarious livelihood conditions with very weak job and income opportunities. Most urban centres are unprepared to receive this influx leading to informal settlements and uncontrolled urban expansion onto agricultural land, environmental pollution, higher crime rates, unemployment, inadequate infrastructure and a subsequent fuelling of tensions (*Mediterra*, 2008).

Urban and rural poverty developed over the 90s: between 3 and 4 million of poor in Algeria, 40% of rural households in Egypt and Morocco and 25% of the population in

Tunisia were poor. Social inequalities increased in Algeria, where there was a decline of the industrial sector. Local economies are characterised by low levels of diversification: agriculture, tourism, remittances and income generated by foreign companies delocalised and based on low-skill labour, with low salaries and low technological input are the main activity sources or economic wealth.

The unemployment rate in the SEMCs, in 2011, has been calculated, by the International Labour Organisation, close to 10%. It particularly affected young people with a diploma, whose unemployment rate has reached 23.6% in Algeria, 20% in Tunisia (800000 unemployed) and 30% in Morocco (World Bank, 2012).

The effects of the 2007-2008 crises, worsened by those in the years 2010 and 2011, the sovereign debt and the euro-zone crises, turned into a slowdown of the economic development rate in the SEMCs, particularly those with more linkages with the international markets.

Rural unemployment in the Region, however, is likely to have been underestimated for two reasons: first, what is called “disguised unemployment or underemployment” in rural areas either as a consequence of family and especially women’s labour on small farms invariably being unpaid or, as a result of involvement in the informal sector where unskilled labour is very poorly rewarded. The second reason is the mass migration of the rural poor towards the urban centres, thus inflating urban unemployment rates in the cities: what IFAD has called the “transfer of poverty from the rural to the urban areas” (2007).

If, on the one hand, this massive migratory influx causes a further impoverishment of the rural communities (exodus brings lower services provision, lack of infrastructure, economic decline), on the other hand urban unemployment is leading to the return of young people to their communities of origin. The phenomenon of “counter urbanization”, with the formation of new or the growth of existing settlements in rural areas, is especially visible in countries like Algeria and Morocco (Mediterra, 2009).

5.2 Poverty

The Southern and Eastern Mediterranean Region has achieved a good level of food security in recent decades and hunger does not affect the population as much as in Sub-Saharan Africa. However, food insecurity still affects vulnerable groups, such as nomadic pastoral communities and marginalized rural populations more generally. This situation is, of course, exacerbated during moments of political upheaval.

The economic and financial crises will reopen the discussion on or shake the economic foundations of the economic models based on the export and that were the main drivers of globalisation, which took place over the last ten years. The increase of the exchanges leading to globalisation is marking time and has weakened, China and other emerging countries are stepping up overcoming industrialised countries (Europe and America). International trade has recorded a decrease of 9% in 2009, the most important during the last 60 years (Benhammouda, 2010). There is also to take into notice the cut of half of the Foreign Direct Investments, a decrease of the remittances and tourist flows between 5 and 8% since the outbreak of the crises (Hugon, 2010).

Box 2

According to IFAD (2010) the Region has been able to reduce rural poverty from 32% in 1988 to 11.7% in 2008. In 2008 there were, however, still 6 million people living in extreme poverty (subsisting on less than US\$ 1.25/day) in the rural areas, which represent 40% of the total regional population experiencing this level of deprivation (see Box 2).

Naturally, the geographic distribution of poverty is characterized by significant variations depending on natural resource endowments, the presence or absence of social services, employment opportunities in accessible urban centres and, of course, the security situation. For example, 12% of the Region's rural population live in the highlands and mountains, which are characterized by low levels of economic development (Mediterra 2009). On the other hand, urban poverty is increasing and has now overtaken rural poverty rates. As already stated, this is related to the massive migration phenomenon pushing poor rural people towards urban centres looking for employment opportunities.

Other significant phenomena include an increase in the number of hungry people between 2008 and 2009 as a consequence of the food price hikes but also as a consequence of a long-term state of food insecurity, declining farming population, scarcity and deterioration of natural resources, and neglect of government policies (IFAD, 2010).

Incidence of rural poverty (percentage of rural people living on <US\$2/day)	
1988 – 32.7	
1998 – 30.7	
2008 – 11.7	
Incidence of extreme rural poverty (percentage of rural people living on <US\$1.25/day)	
1988 – 9.5	
1998 – 6.6	
2008 – 3.6	
Number of rural people in poverty (<US\$2/day)	
1988 – 41 million	
1998 – 44 million	
2008 – 19 million	
Numbers of rural people in extreme poverty (<US\$1.25/day)	
1988 – 12 million	
1998 – 10 million	
2008 – 6 million	
Rural people as percentage of those living in extreme poverty (<US\$1.25/day)	
1988 – 99.0	
1998 – 61.3	
2008 – 40.1	

Rural Poverty Report 2011, IFAD

Box 3 Impacts of the economic crisis of 2007-2008 in the Maghreb countries

- Tunisia: the effect of the crisis has been the suppression of 40000 jobs in 2008, in the manufacturing sector. The unemployment rate during 2007-2008 stabilized at 15% and recorded a small increase in 2009, mainly affecting those with a diploma (whose unemployment rate was 30%). Also the tourist sector was affected and only in 2009-2010 the reduction was less critical thanks to the influx of Algerian tourists (1,5 million out of 4 million). All these economic indicators explain the drop of the GDP growth rate, from 6.3% in 2007 to 4.6% in 2008 and 3.5% in 2009.
- Morocco: The economic growth rate drops to 3.5% in 2010, as a consequence of the fall of the market value of phosphates, slow development of tourist revenues, weakened flow of remittances and decrease of foreign direct investments. In the same year there is a deficit of 5.2% in the balance of payments. The trade deficit of Morocco that has doubled over the last 20 years is due to the explosion of the food and energy bills, whose prices have dramatically increased since 2007-2008. The worldwide economic and financial crisis has restrained the scope of intervention of public spending in relation to the investment efforts necessary to implement different sectors' plans (Green Plan, Industrial emergency, etc.). The national Pact for the industrial emergency, whose ambition was the creation of 400000 jobs by 2015, has been reviewed to be cut down to 210000 jobs.
- Algeria: the transition from the self-centred economic model promoted in 1970 to one based on the exports is taking place in a global economic situation characterised, in the year 2000, by a calm price of hydrocarbons. This is why, even if the Algerian economy is not very diversified (hydrocarbons represent 90% of exports and oil taxes 40% of State revenues) and there is a remarkable level of unemployment (unemployment rate of 10%), this country has been less

affected by the financial crisis. Those effects have been absorbed by the public expenditures implemented in the framework of different plans known as “economic revival”. The oil prices increasing on the global markets have been crucial in the economic revival and at the basis of the redistribution function of the State in the years 2000.

Source: Bessaoud, 2013

5.3 Rural community groups

Rural communities are represented by specific groups and categories and IFAD suggests distinguishing the major groups by livelihood systems as follows: small farmers, nomads and pastoralists, artisanal fishermen, landless and waged labourers. In addition, specific key groups are also identified by personal characteristics that include women headed households, unemployed youth; displaced persons (see Box 4).

Box 4

Major groups defined by livelihood system

Small farmers

Tenants and smallholders practicing rain-fed agriculture on small farm plots are generally the poorest and most vulnerable farmers. While there is insufficient data to aggregate their numbers across the region, they probably constitute the majority of farmers. In Morocco, for example, roughly 85 per cent of arable land lacks irrigation. Aside from rain-fed farmers, a considerable number of small farmers on irrigated land are also poor, due to their weak asset base. Most vulnerable of all, however, are farmers with insecure land tenure: those who farm as tenants or sharecroppers. The livelihoods of small farmers generally depend on a variety of resources including: rain-fed tree crops, cereals grown for their own consumption (such as wheat) or animal feed (such as barley), and small livestock that enhance household nutrition and supplement crop income. In Egypt, for example, smallholder households typically have access to less than 1.5 ha of land and keep an average of one large and three small ruminants. They have to supplement their incomes from wage labour and internal migration, as their agricultural work provides, at best, only half of their staples.

Nomads and pastoralists

Depend on natural rangelands and are most prevalent in Algeria, Jordan, Morocco, Somalia, Djibouti, Sudan, Syria, Turkey and Yemen. Pastoralists in these countries typically keep a few camels and some small ruminants (sheep and goats) and reside/move in very arid zones. These include: (i) settled pastoralists who generally raise around 50 animals; (ii) semi-nomads travelling limited distances with about 120 animals; and (iii) nomads with about 200 animals who are part of extensive transhumance systems. Small Bedouin herders in Syria, for example, own a small ruminant herd of 50 to 100 sheep and/or goats as their major source of income. Some may derive additional income from other sources, such as working abroad or within the Badia rangelands for larger stock owners, or being involved in trade.

Artisanal fishers

Artisanal fishers can be broadly defined as the traditional fishers who exploit small-scale fisheries extending some 4 to 12 km from the shore. They operate with 5 to 10 metre boats, typically shared by small groups of four to seven members. The boats are usually open and single-deck, powered by small outboard engines. Artisanal fishers reside in small fishing communities located along more than 7,000 km of coastline from Yemen, Syria, Lebanon, Sudan, Egypt, Tunisia, Algeria and Morocco. These communities receive practically no social services and many live in destitution.

Landless and wage labourers

This group includes a growing number of agricultural and non-agricultural workers. Many are members of farm households with insufficient land or water resources to support all family members. Others have no land at all. In some areas there is a strong predominance of landless wage labourers over farmers, who make their living working for daily wages off-farm or on the farms of larger landowners. In Egypt, for example, the landless are usually engaged in daily wage labour in agriculture or construction, internal migration to urban areas, and petty trading. On average, they find work for about 10 days a month. They have insignificant numbers of livestock, usually only domestic fowl, which are used for home consumption but more frequently are sold when the need for cash is particularly acute. Rural households headed by wage earners tend to dominate the lowest expenditure groups in some countries. In Morocco, for example, the rural poor -- landowning or not -- rely more on wage income than on cultivation of their own land. In Jordan, most small farm households rely on wage labour income to survive. In rural Egypt, labouring typically accounts for 85 per cent of household income among the poor.

Major groups defined by personal characteristics

Women-headed households

The number of woman-headed households is increasing because of extensive male migration, the increased number of disabled males (due to conflict), widowhood and divorce. On average, these households tend to be considerably poorer and more vulnerable than households headed by men. In Turkey, for example, poverty rates are higher among households headed by women (32 per cent) than those headed by men (26.6 per cent). In the mid-1990s, woman-headed households constituted 5 to 20 per cent of all rural households in the region. The percentage of woman-headed households was highest in Sudan, at 23.8 per cent, while in Egypt and Morocco it was 17 per cent. According to a recent study of the socio-economic characteristics of woman-headed households in Egypt, 62 per cent of women who head families are widows. The illiteracy rate for woman-headed families (73 per cent) is higher than the rate for the entire population of rural women (63.3 per cent). About 80.5 per cent of woman-headed households in rural Egypt are landless. In this respect, liberalization of the land-rental relationship has pushed some woman-headed tenants out of their agricultural landholdings.

Rural unemployed youth

As mentioned earlier, in a region with a very young population (58 per cent under age 25) estimates of youth unemployment are very high. Economic growth in recent years has not kept pace with the high population growth rates throughout most of the region. The resulting rise in unemployment has particularly affected the young new entrants to the job market, especially in the rural areas. Unemployment figures for young women appear to be even higher. This segment of the population often has inadequate education and skills. In 2003, youth illiteracy was 17 per cent, 80% of whom were girls. According to the ILO, the youth unemployment rate in the Region stands at 25.6 per cent, which is the highest compared highest regional rate in the world. According to the same report, labour force participation rates for young people at just 39.7 per cent are lowest in the Middle East and North Africa compared with sub-Saharan Africa (65.4 per cent) and East Asia (73.2 per cent).

Displaced persons

Significant numbers of poor people have been displaced or live in post-conflict situations in the region. The largest number of refugees in the Region today originates from Gaza and the West Bank, Somalia and Sudan. In addition, the region includes Yemeni returnee emigrant workers, recent Iraqi refugees in Jordan, and Lebanese farmers whose farms were destroyed during the latest war with Israel. An estimated 19 per cent of the world's refugees and displaced persons emanate from the Middle East and North Africa. These people are probably among the poorest and most vulnerable population groups and constitute a significant proportion of the rural poor in the Region. The percentage of women and children in these groups is relatively higher than in more settled communities.

Source: Adapted from IFAD 2007

It is clear from the data presented in Box 4 that one group which requires particular mention across the Region is women, whose exclusion from the economic, political, civil and social life of rural communities is still marked. Women rarely benefit as much as men in terms of training, information, credit and extension services, and a significantly higher percentage is illiterate (in Morocco 62% of women against 39% of men). It has been estimated that if women received the same education as men, farm yields would rise by between 7-22% (J. Berdegù, 2005; J.Dixon et al, 2001; Roseboom, 2007b). Women suffer from limited access to and control over land, with some reports suggesting that women account for just 5% of total landholders in Egypt (where 80.5% of women-headed households are landless) and Syria.

Women, in some areas are only expected to interact with female extension agents the number of whom is very limited. However, the trend is reversing thanks to the emergence of women graduates returning to their villages in countries such as Algeria, Egypt, Jordan, Morocco, Syria and Tunisia (IFAD, 2007). Women's participation and empowerment is still an issue, however, as demonstrated by their underrepresentation in the boards of rural associations and cooperatives. Nonetheless, there is an encouraging trend showing an increasing number of women's groups and associations at different levels (national and local), which contribute to spreading awareness and information on several aspects of interest to them (rights, technology, environment, education, etc.) (IFAD, 2007).

5.4 Territories and livelihoods

In general, agriculture is practiced on small, frequently marginal and/or fragmented parcels of land (see Table 1).

Groups are located in a variety of landscapes and with different population densities. While there is a concentration of communities along the coastlines and major urban centres, other communities are located in desert oases, mountains and steppe areas. This implies marked differences in the availability of resources, services, presence/lack of institutions and infrastructures, urban employment opportunities, and security, all of which influence the possibilities and pace of development of their livelihoods.

Table 1 - Farm structure in Mediterranean countries

Morocco (1996)	2 million agricultural entrepreneurs, 70% with land holdings below 5 ha
Tunisia (2004-2005)	516,000 enterprises, 53% with access to less than 5 ha
Algeria (2001)	1.2 million enterprises with average farm size of 4,7 ha
Egypt (2000)	3.7 millions farms mostly under 2 ha
Turkey (2000)	3 millions farms 25% less than 5 ha
Albania (1996)	450,000 farms with an average size of 1,7 ha

Source: *Mediterra 2009*

Dixon and Gulliver (2001) have identified 8 main livelihood systems in the region, in relation to the specificities of their territories, such as natural resource base or availability of infrastructure and services:

- irrigated, whose small-scale irrigation sub-systems represent a crucial factor in the livelihoods of smallholders in arid and remote mountain areas;
- *highland mixed*, where most of the rural communities are located having only 7% of the total land available, hence with high poverty levels, distant markets, poor infrastructures and significant natural resource degradation;
- *rain-fed mixed*, characterized by high population density (living on only 2% of the available land) and lower poverty rates thanks to off-farm income generating activities derived from seasonal labour and migration;
- *dryland mixed*, with larger sized farms but higher risks of drought and high food insecurity, where poverty is widespread among smallholders;
- *pastoral*, with mainly sheep and goats but also some cattle and camels, including large areas of semiarid steppe, characterised by low population densities, with more densely populated areas around irrigated settlements. These are linked to other farming systems through movement and sale of animals. Poverty is widespread;
- *coastal artisanal fishing*, artisanal fishers living along the coasts combining income from the sale of fish with small-scale crop and livestock production, accounting for about 1 million people living on an area of around 11 million ha;
- *Sparse (Arid)*, covering more than 60 percent of the region and including vast desert zones, where poverty is low and population pressure limited. It includes about 4 million people concentrated in oases and irrigation schemes (Tunisia, Algeria, Morocco and Libya) who produce dates, fodder and vegetables and have

about 2.7 million cattle. Sparse agriculture and herding coexist with boundaries set by climatic conditions;

- *Urban Based*, a small population of urban residents engaging in small-scale production of horticultural and livestock products.

Table 2 indicates the weight of different systems in terms of area and population, and indicates the predominant livelihood activities and the incidence of poverty.

Tab. 2 - Major Farming systems in the Middle East and North Africa

Farming Systems	Land Area (% of region)	Agric. Popn. (% of region)	Principal Livelihoods	Prevalence of Poverty
Irrigated	2	17	Fruits, vegetables, cash crops	Moderate
Highland Mixed	7	30	Cereals, legumes, sheep, off-farm work	Extensive
Rainfed Mixed	2	18	Tree crops, cereals, legumes, off-farm work	Moderate (for small farmers)
Dryland Mixed	4	14	Cereals, sheep, off-farm work	Extensive (for small farmers)
Pastoral	23	9	Sheep, goats, barley, off-farm work	Extensive (for small herders)
Sparse (Arid)	62	5	Camels, sheep, off-farm work	Limited
Coastal Artisanal Fishing	1	1	Fishing, off-farm work	Moderate
Urban Based	<1	6	Horticulture, poultry, off-farm work	Limited

Source: FAO data and expert knowledge.

Note: Prevalence of poverty refers to number in poverty, not depth of poverty, and is a relative assessment for this region.

6. Problems analysis

A set of problems of environmental, social and political nature, considering the geographical characteristics of the Region, the history and natural resources endowments, affect smallholders' productive activities and wellbeing in a critical way.

Agriculture still is the main productive activity for rural communities but it has to adjust to several challenges, such as limited land, shortage of water, soil degradation, biodiversity loss, climate change. Smallholder communities in the Southern and Eastern Mediterranean Countries suffer from lack of public provided goods and services, lack of investments and policy failures that have contributed to their marginalisation compared to urban centres, as it was acknowledged in the "Mediterranean Strategy for Sustainable Development", adopted in 2005 by the Mediterranean Action Plan (Mediterra, 2009).

Moreover, urban migration doesn't offer them a solution to poverty if we consider the demographic trends witnessed in the Region- increased population, youth unemployment- with a consequent shift from rural to urban poverty.

In the following paragraphs, starting from the consideration that the main productive activities in rural communities are agriculture and non-rural occupation and that revised policy and development approaches more focused on resource conservation, increased wellbeing, and good governance can boost sustainable development possibilities, we report on some of the main problems hampering sustainable development of small rural communities.

6.1 Agriculture

Environmental constraints

Agriculture is the main productive activity of small rural communities and, as it has been stated, smallholder farming can contribute to food security by increasing production, by determining a lower price of food on the market thanks to the increase of supply and helping to create more jobs, both on and off-farm (Wiggins *et al.*, 2013; Hazell *et al.*, 2007). However, smallholders' productivity in the Region is strongly influenced by the environmental constraints that characterize the Mediterranean area. Climate change with its unpredictable and irregular paths is increasing production risks for small farmers, who experience huge losses of their produce caused by droughts or floods. This combines with their already scarce resource base, especially land and water, increasing desertification and land degradation processes (IFAD, 2009; IAASTD, 2009; Belghazi, 2013).

Box 6

Water is a very scarce resource and in vast areas the rainfall is below 300mm per year or is unpredictable and irregular. Furthermore, as global warming progresses, precipitation is likely to become more intense at certain times of the year while dry periods will be more prolonged (IPCC, 2007) with total annual precipitation decreasing over much of the Mediterranean region. Land also is a scarce resource, with cultivable land accounting for just 9% of the total, compared to 12% globally (see Fig.1). Scarcity is exacerbated by land degradation due to deforestation, over-cultivation urbanisation and fragmentation.

Water shortages, in an already water depleted area that uses 70% of the resource for irrigation, can quickly become droughts, leading to increased fire risks, desertification, and changes in tourism patterns, all of which will have strong impacts on the rural communities. Rural livelihoods are strictly connected to water availability and use, especially for the poorest smallholders, whose survival is based largely on rain-fed production systems, which are most susceptible to droughts and floods.

Intensification of agriculture is possible in some limited areas where there has been an increase in irrigation schemes, and it especially concerns fruit and vegetables, an important sector in development based on local and intensive labour; where the share of irrigated land is small productivity dwindles or is unstable (Belghazi, 2013). If we consider table 2 we can see that almost 50% of the rural population is mainly concentrated in drylands, where smallholder communities' farming systems are characterised by natural resource degradation, exacerbated climatic events, poor services and infrastructures, and where poverty is widespread.

It is an overriding need to create the capacities for smallholders to pursue a sustainable intensification of agriculture where, as reasserted by the Montpellier Panel (2013) "the output of intensification need to be defined not only in terms of crop yields but agriculture's potential to tackle poverty and undernourishment".

Land tenure issues

Scarcity of land and unclear or absent land rights have a significant impact on smallholders productivity in the Region and this is directly and indirectly intertwined

with a whole set of sustainable development objectives (IAASTD, 2009). Farms size, according to World Bank data (hectares per person) declined from 0.45 ha in 1961 to 0.14 ha in 2009. Fragmentation derives from pressures following population growth, subdivisions linked to inheritance, from unclear laws that reflect the overlapping of ex-colonial laws, land nationalization processes and tribal regimes, which have determined the multiplicity and complexity of land rights (AUC-ECA-AfDB, 2010). Those elements make land ownership unclear and subject to disputes, moreover it affects its productivity for different reasons.

Lack of tenure security prevents investments, hampers the ability of small farmers to take decisions related to increasing production, employ extra-labour, plant long-term crops for household consumption or for selling. Important decisions concern the practice of sustainable farming methods to improve management of their resources (DEVEX, 2013). The situation is particularly hard for women, whose rights are already weaker than men's.

Lack of human development

In the marginal areas, like drylands, agricultural productivity and sustainable land use are challenged not only by environmental factors and political mismanagement but also by social factors such as lack of skills and illiteracy. These pose a threat to incentive, people's capacity to innovate, and hinder their competitiveness. Most smallholder communities farm their lands according to traditional practices that respect nature, but we need to consider the fact that poverty and the urgency to satisfy subsistence needs can drive them towards damaging agricultural practices, or they can just be inexperienced of alternative land uses like "forestry, wild life ranching, ecotourism" (IFAD, 2013, IASSTD, 2009). This lack of skills and education prevents them from using their land in a more profitable way while conserving their resources.

The enhancement of information and human capital are increasingly needed due to the emerging needs to conserve limited resources and fragile agroecosystems, to create skills in non-farm sectors, and to adjust to market requirements shaped by local and regional demand, thus implying modified practices and patterns of production.

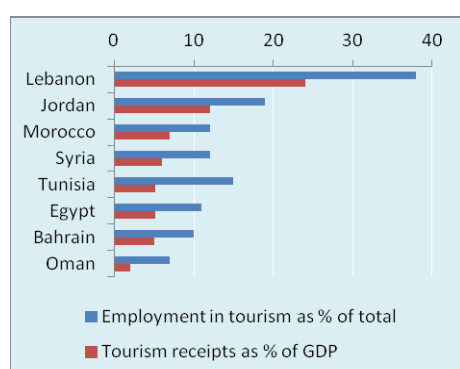
All these problems affecting smallholders' productivity and posing an obstacle to rural development have seen agroecology as a substantial way to offer a solution. As stressed by UNCTAD (2013), this approach has proved its efficiency in increasing agricultural productivity by promoting cultivation practices that conserve the ecosystem: low external input techniques, where biodiversity is carefully managed favouring the distribution of more resilient crops (IFAD, 2013), labour intensive practices where diversification of land uses helps to cope with climate changes, where smallholders' livelihoods are improved. This improvement is synonymous of increased incomes that can drive smallholder communities out of food insecurity, as they can have access to adequate food intakes, and out of poverty as more income is usually spent in the local markets, contributing to create a demand for non-agricultural products and conferring dynamism and non-farm employment opportunities in their rural areas (UNCTAD, 2013; Wiggins *et al.* 2013; De Schutter, 2010) helping to slow down rural migration to urban centres where poverty migrates also.

6.2 Insufficient farming generated income: non-farm employment

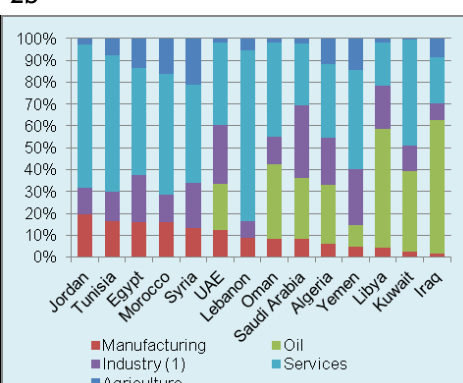
Agriculture still is the main activity for rural communities. However, its economic importance is changing, agriculture is no longer a source of economic growth, yet the majority of the poor continue to live in rural areas. While the rural population is increasing overall, the agricultural population continues to decline (Plan Blue, 2011). In rain-fed and marginal areas off-farm activities are considered of major importance for strengthening rural livelihoods (World Bank 2008; IFAD 2010) and in some countries such as Egypt and Algeria, activities in non-farm sectors, mainly construction, are providing better salaries than farming. A massive migration trend, combined with social crisis hitting small-scale farmers, has led to a decrease of the active agricultural population, especially in Lebanon, Libya and Israel, followed by Turkey, Morocco, Palestine, and Jordan (Mediterra 2009).

Specific sectors that are considered very important in this respect include rural tourism and value adding through agroprocessing (See Figures 2 a and b).

Figures 2a



2b



Source: OECD, 2012

Non-farm activities would benefit from a more productive farming sector, especially favouring activities with high added value (diversifying agriculture) and activities linked to products marketing, but lack of investment is a crucial limiting factor, together with limited access to land and markets.

In this context, rural households may prefer to move some of their labour into non-farm activities, salaried and self-employment, which can offer better opportunities but also function to manage risk and diversify income sources. Indeed, the least diversified livelihoods are clearly correlated with the poorest households (IFAD, 2011).

This situation is clearly portrayed in Box 5, which takes Turkey as a case in point.

Table 3 Agricultural employment in Turkey 1990-2003

Table 2 - Agricultural and non-agricultural employment in Turkey 1990-2006 (thousands)

Year %	Turkey			Rural areas*		
	Agriculture	Non-agriculture	Total	Agriculture	Non-agriculture	Total
2003	7 165	13 982	21 147	6 687	3 173	9 860
%	33.88	66.12	100	67.82	32.18	100
2000	7 769	13 811	21 580	7 349	3 128	10 477
%	36.00	64.00	100	70.14	29.86	100
1995	9 080	11 506	20 586	8 635	2 559	11 194
%	44.11	55.89	100	77.14	22.86	100
1990	8 691	9 848	18 539	8 308	2 515	10 823
%	46.88	53.12	100	76.76	23.24	100

* Villages of less than 20,000 inhabitants are considered rural.
Source: SIS, Household and employment survey (2003) and Elci (2008).

Source: Mediterra, 2009

The World Bank in 2008 made a call for economic and social dynamism and openly invited rural populations to engage in non-farming activities as a way to revive rural areas. When global economic growth is strong and local conflict is absent, off-farm activities can provide good potential for rural employment and income generation and thus relieve pressure on the already depleted natural resources. However, rural areas are rarely able to provide adequate non-agricultural sources of income so that, with diversification remaining limited, poverty and food insecurity continue. One of the reasons for this is linked to the curtailment of policy interventions during the neo-liberal era.

The growth of rural populations, especially young people, also poses the question of creating job opportunities within rural communities to reduce unemployment rates. The reduction of poverty levels, the improvement of education, and of communication systems, will probably increase the demand for rural communities to supply additional goods and services, such as handicrafts, building skills, hospitality and environmental services, etc

6.3 Smallholder communities' opportunities versus insufficient public goods

To sustain smallholder rural communities on their path out of poverty and towards sustainable development it is necessary for the State to provide some goods and services that would trigger a virtuous circle of production, wellbeing and balanced and conserved agro-ecosystem: extension services, storage facilities, rural infrastructures, access to markets, access to credit, education, agricultural research and promotion/support of small farmers' organizations (De Schutter, 2010).

Poor services in rural areas limit opportunities for rural communities. Extension processes are still mainly controlled by governments and because of the budgetary constraints they face, deterioration in their quality has followed. Moreover, they are often based on top-down processes (IFAD, 2007) that leave no room for developing local learning and innovation competences.

Important deficiencies include lack of transport and infrastructure, and limited or zero access to finance, all of which impair the competitiveness of small-scale farmers. In rural areas the formal banking sector is often absent due to perceptions of higher risks and transaction costs, making it impossible for smallholders to buy modern inputs and necessary equipment. Rural marketing and distribution systems are often incapable of guaranteeing sustainable incomes because suitable markets are not accessible due because of poor infrastructure networks, which lead to losses and wastes, thus having negative impacts on smallholders' incomes.

Public investment in agriculture has decreased since the disengagement of the state following structural adjustment in the 90s adding to the perception that the Region's agriculture was an unprofitable sector compared to other businesses. However this gap has not been filled by the private sector because of the marginalised status of rural areas and the perception of higher risk. Nevertheless, it has been extensively demonstrated that public investment in the agricultural and rural sectors supports growth and agricultural productivity enhancement, promoting rural development and contributing to poverty reduction (Mediterra, 2009).

6.4 Policy and governance failures

Small farming is still an important trait in the region's rural communities, small farms are the majority but they have stayed marginalised and often ignored by agricultural policies, despite the fact they have been the basis of stability and wealth, making efficient use of available resources in a specific context (Policy Brief, 2012). With the economic liberalisation processes started in the 80s leading to a withdrawal of the State from agricultural markets and support services, small farm enterprises were exposed to a number of additional threats to their sustainability: rapidly increasing input prices, lack of extension services, and worsening access to credit and agricultural machinery.

Economic liberalisation has not been matched by an equivalent step in social and political terms, meaning that the rural poor have remained excluded for lack of information and adequate skills from the benefits of the economic liberalisation policies focused in those areas where conditions are more favourable for growth (IFAD, 2007).

To respond to this gap of engagement the rural civil society has directly been involved in the development process through collective action. However, organised communities have found hard to promote development for the high level of bureaucracy and centralisation that characterise SEM governments. At the same time the level of governance registers low standards due to lack of participation, rule of law (especially in land tenure issues), transparency, equity, consensus orientation, inclusiveness, accountability (IAASTD, 2009). In the Southern Mediterranean region, civil society emerges as a key development actor although "(...)the legacy of centralisation and authoritarian political systems will continue to influence the forms of intervention and organisation of local actors" (Mediterra, 2009).

Decentralization and increased participation of poor rural communities in decision-making processes is crucial if government agencies want to maintain closer contact with local communities for a better management of natural resources, such as securing access to land, water, and service provision. But development can be sustainable only if those who have a stake in it are able to take part in the process.

The SEMC Region has made increasingly important steps along the path of decentralization; however, several problems have been encountered in securing effective action. The inefficiencies in servicing more marginal communities is the consequence of several factors, such as poor infrastructure, limited communication and lack of coordination among different levels of authority, and widespread corruption. The quality of services rural people need have not been delivered because of the lack of coordination of the various public agencies involved in the administration of resources and conflicting institutional priorities (Mediterra, 2009).

To make decentralisation more effective what is needed is cooperation between governmental, non-governmental (private and third sector) and community-based organisations. The last two are crucial in a participatory process to build consensus. Naturally, without the appropriate institutional capacities, the system cannot prosper. Capacity building, involving local institutions and organisations in developing systems of innovation and learning competence, is therefore a prerequisite. Participation of rural communities can only be effective in the context of good governance: transparency and accountability, where service providers (state or private) take responsibility for their shortcomings and inefficiencies. There has been a growing demand for alternative institutional forms to replace outdated, authoritarian institutions and practices and

there has been an increasing number of non-governmental organizations supporting the interests of rural communities and small-scale producers.

7. Policy needs

An important issue is the existence of a conducive environment for the development of rural communities' institutions, and appropriate policies are the foundation for enabling stakeholders to take actions leading to development and sound investment choices. Existing policies have often failed to address context specific problems, smallholders' specific needs, in ensuring inclusiveness and equity in the access to property, resources, and credit. This is the case for land and water, where inherent rights can be unclear and differentiated across countries, communities and social groups. Limited access to information prevents smallholders from taking advantage of the market like other, stronger players (commercial farmers, multi-nationals, etc.). Well intentioned policies to address low agricultural productivity and poor marketing, have often favoured large-scale producers operating in more favourable areas. Moreover, policies providing public goods and services, such as healthcare, education and infrastructure, are usually more favourable to urban people, leaving smallholders' communities behind. This hampers sustainable development. There is still the need for better designed policies in guaranteeing smallholders a full role in debate and decision-making, allowing them better representation in political bodies at different levels.

There is also a need for policies able to address impending challenges like climate change, natural resource scarcity, and the loss of important agrobiodiversity. Policies need to target vulnerable groups and support small producers' organizations, such as associations, cooperatives, and other formal and informal groups, which are essential tools for rural communities development, especially in building effective "smallholder-oriented value chains" (IFPRI, 2011).

In the light of the trends and deficiencies mentioned above, the SEM Region has witnessed the emergence of rural development policies targeting improvements in living conditions, focusing on infrastructure; linkages between farming and non-farming activities; diversification of activities to support rural employment; protection of natural resources; strengthening the role of rural organizations that can successfully claim rights, establish responsibilities, reduce transaction costs, and facilitate the circulation of knowledge and information (Bessaoud et al, 2009). Such policies, and a better coordination among them, are crucial for smallholders' capacity and opportunities for development and also to support and encourage innovation and learning competence.

Empowerment

Relevant and empowered rural groups and institutions are crucial for sustainable agroecosystem management and rural development as they can act to prevent power dynamics from marginalising the rural poor and making sure their rights of access and use of the natural resources are secured.

Empowerment can result from the development of learning and innovation as well as conventional agricultural competencies, allowing rural people to "gain a thorough

understanding of their representative organizations and identify specific areas that need strengthening through skills training” (IFAD, 2007).

They can promote access to production and technology information, another area from which the rural poor are marginalised. Local groups can improve market access benefiting small-producers with a wider range of opportunities given by increased demand for high-quality products and emerging markets for environmental services from which they have often excluded (OECD, 2011). Finally, they can support and promote participation in decision-making processes and facilitate inclusiveness and equity. Taken together these factors can constitute critical systems of learning and innovation competence.

In the Mediterranean Region there is an important presence of local groups. Morocco, in 2006, registered 250 producers’ associations and groups, and 6,000 cooperatives. Algeria had 1,300 professional associations and over 800 service cooperatives. Egypt had 5,717 cooperatives in 2002 (Mediterra, 2008). In these countries producers’ associations are supported by the presence of NGOs, helping especially in negotiations with the State, and a new elite formed by young graduates going back to their places of origin contributing to human capital development. Strengthening local institutional capacity, however, requires a careful approach guided by consideration of local resource and management constraints. In particular, rules placing the emergent organizations under the control of local administrations; issues relating to the legitimacy of rural associations, which must be recognized by the local population to act on behalf of the collectivity and to develop an elected leadership structure with the backing of representatives from a variety of local groups; financial pressures; and lack of information and training for grass-roots actors.

8. Research needs

In the SEM countries the general situation of research presents broad margins for improvement: in terms of GNP only 0,2% is invested in it instead of the 2% recommended (IAASTD, 2009). Moreover, it shows a gap between its direction at national and international way and what is really useful for small farmers. This gap needs to be filled immediately as agricultural research has the greatest impact on poverty and agricultural productivity (De Schutter, 2010). In line with our address research should be more focused on the real needs of smallholders’ rural communities, more sensitive to their local conditions and “receptive to local/traditional knowledge” (IFAD, 2009) aiming at developing agroecological practices. More should be done to increase smallholders’ resilience and productivity and to incorporate their indigenous/traditional knowledge into development processes.

8.1 Creating Knowledge on sustainable agroecosystems (SA) and Natural Resource Management (NRM) experiences.

Sustainable agroecosystems and NRM are priorities in the SEMCs. These practices can ensure the conservation and protection of fragile rural environments and societies who often suffer from the externalities of economic development in the urban centres and so-called core nations. Experience generated over many years of the Sustainable Agriculture programme at the IAMB has already catalogued numerous positive experiences in the SEMCs. Elsewhere, research has contributed to the development of technical measures for land management, soil and water conservation, soil fertility

management, pest and disease management, etc. Frequently programmes have been established to promote Integrated Pest Management (IPM), watershed management, and the conservation of critical natural capital. It is important to investigate how these technologies have been adopted and adapted to the benefit of small-scale producers in order to identify and understand both bottlenecks and catalytic factors in sustainable development processes.

8.2 Researching smallholder agroecosystems and technologies

Research has to orient investigations in the light of smallholder agroecosystem specificities and local needs or opportunities, while maintaining an agroecological approach that is consistent with long-term local potential. This includes the improvement of key technologies and practices, to increase agroecosystem productivity and resilience; the use of ecological processes, minimizing the use of external inputs and non-renewable energy. The study of small/medium scale post-harvest agro-processing technologies, with low operating costs, locally developed bio-pesticides and cultural practices will be essential.

8.3 Investigating local knowledge and institutions

Different studies and experiences show the important role that local communities have in innovation processes, designing sustainable practices and establishing local groups that facilitate sustainable management of natural resources and agroecosystem productivity. Traditional institutions, such as the Agdal in Morocco, and traditional knowledge elsewhere, risk being neglected despite representing important ecologically and culturally relevant solutions and assets for sustainable rural development. Of vital importance in this context are the critical systems of learning and innovation competence that are central to maintaining the health and vitality of local economies.

8.4 Research on value chains and non-farm sector development with added value for Rural Communities (RCs)

Research should be oriented towards sectors where market opportunities exist, not only in farming, but also at other levels in the value chain, looking for linkages among RC actors and appropriate external players. Sectors like fruit crops and vegetables offer good opportunities in irrigated areas, where smallholder productivity is higher and a lot of labour is required. In particular locally valued species and varieties, often neglected by commercially oriented research should be identified and developed in the context of integrated production systems. In more marginal areas, spices and Mediterranean herb crops (such as rosemary, saffron and argan (*Argania spinosa* L.)) or tourism offer real opportunities for added value. The role and potential of smallholders should be analyzed at each level of the value chain: as suppliers of inputs, or processors of products, or providers of other services, such as certification, marketing and training. Research into how more equitable linkages can be established between small-scale producers and more powerful actors along the value chain (embedded services, contracts, etc.) also needs attention.

8.5 Studies for supporting service decentralization processes and RCs empowerment

Research has to contribute to identifying and analyzing solutions to a set of structural and organizational limits, such as marginalization, poor infrastructures, services weakness, imperfect and unstable markets, which restrain the income generating possibilities of small rural communities. RCs still require education, training, information, financial services, etc. to assist their efforts towards innovation and investment. Nowadays the trend is towards the decentralization and liberalization of these services, with a strong involvement of local communities as a way to reduce costs and tailor services to local ecological and cultural specificities. Examples include: studying local governance systems for services innovation and development (research, technical assistance, credit, natural resources management, etc.) based on the decentralisation of responsibilities and active participation of local actors; studying small rural producers' land tenure systems and looking for opportunities to extend their rights over the management of important resources such as water; studying positive externalities linked to the maintenance of rural communities as custodians of the environment and territories.

9. Final remarks

This work has highlighted the peculiarities of the Southern and Eastern Mediterranean Countries, highly heterogeneous, a character that is precious from the cultural and ecological point of view but also the source of many vulnerabilities from the point of view of designing integrated regional rural development policies. And this has led to marked social and economic disparities.

About 48% of the population of the SEMCs lives in rural areas, where poverty is still concentrated despite a growing urbanization (especially along the coasts). Agriculture is still the main activity but is not the sole contributor to livelihood sustainability, rising incomes or food security. As data provided by IFAD in 2007 show, considering the percentage of economically active people engaged in agriculture in the region (37.8%) and the contribution of agriculture to regional GDP (12.6%) it can be seen that labour productivity is still low. One of the reasons is the reduction of public investment in rural areas that has not been compensated for by a stronger engagement of the private sector in investing in rural enterprises. The latter is hampered by several obstacles, among which the most important are poor rural infrastructure, poor access to credit, limited rural services like extension, education, and training to enhance smallholders' capabilities, and imperfect market mechanisms. Engagement in non-farm activities would offer smallholders more opportunities and reduce households' vulnerability to shocks and crises. At the same time, however, we have also pointed out that increasing labour productivity requires capital investments and associated fuel costs that may not be sustainable in the long run.

The SEMCs are faced with major challenges, among which scarcity and depletion of natural resources are critical. Access to and use of water and land are at risk, as a consequence of demographic pressure, marginalisation, and gaps in policy frameworks, and will be aggravated by climate change. Small rural communities need to take action

in the management of natural resources to guarantee their sustainable use. And in this they need to be assisted by better targeted policies defining clear and equitable sets of rules.

Smallholders need a better access to technology and markets, their role and potentialities should be analyzed for each level of the value chain.

It is acknowledged by international development agencies (OECD, 2012; FAO, 2012; ESCAP, UNDP and ADB, 2007) and farmer organisations (LVC) alike, that the success and sustainability of local development processes depends on expanding people's capabilities and empowering rural communities in order to secure their access to natural resources, information and markets, and guarantee their rights to participate in policy making and governance processes. Empowering rural people and institutions is important for holding local governments and government agencies to account with respect to the performance of policy measures and the transparency of policy processes.

The process of smallholder and rural community empowerment implies a set of pre-conditions such as political space for institutional development and the facilitation of constructive interaction among different interests (OECD, 2012). According to Gonzalez de Molina (2013), while agroecology is increasingly accepted as an important approach to dealing with food insecurity and promoting sustainable development, very few studies have paid significant attention to the politics of food sovereignty. The majority of practical agroecological experiences do not move beyond the local sphere; they are generally based on farms or occasionally in rural communities, where participatory research, design and action for sustainable rural development are developed. At this level, however, there is no significant challenge to the hegemony of the corporate food regime and its 'global food security' discourse. In order to mount a sustained challenge, and realise their counter-hegemonic potential, agroecological experiences and the goal of food sovereignty require appropriate institutional arrangements in terms of political power and appropriate public policies.

The elements highlighted reinforce the notion that "stability and prosperity will largely depend on implementing models of development which integrate environmental, social and economic dimensions" (Plan Bleu, 2008) and small rural communities are central to those development models.

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